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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/944,835	08/30/2001	Vladimir Jovancicevic	194-26872-US	3322
24923	7590	04/07/2006	EXAMINER	
PAUL S MADAN MADAN, MOSSMAN & SRIRAM, PC 2603 AUGUSTA, SUITE 700 HOUSTON, TX 77057-1130			METZMAIER, DANIEL S	
			ART UNIT	PAPER NUMBER
			1712	

DATE MAILED: 04/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Cn

<b>Office Action Summary</b>	<b>Application No.</b> 09/944,835	<b>Applicant(s)</b> JOVANCICEVIC ET AL.	
	<b>Examiner</b> Daniel S. Metzmaier	<b>Art Unit</b> 1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 December 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3, 6, 7, 10-13, 16, 17 and 20-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6, 7, 10-13, 16, 17 and 20-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

Claims 1-3, 6-7, 10-13, 16-17 and 20-24 are pending.

#### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-3, 6, 7, 10-13, 16, 17 and 20-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knox et al, 4,927,669, in view of Fischer et al, US 5,292,480. Knox et al (abstract; column 2, lines 30 et seq; examples and claims) discloses adding maleated fatty acids neutralized with imidazoline (amine) to a fluid in an amount (examples, Table I) of 750 and 6000 ppm of said fluid. The drag reducing function and an amount of the additive effective to reduce drag would have been inherent to the methods and compositions of Knox et al since the methods and compositions read on

and are otherwise anticipate by the additive and addition thereof, i.e., method steps and concentrations read on their use as a corrosion inhibitor. The instant claims do and the instant disclosure does not preclude the inherent function of the instant claims from the ability to perform a corrosion inhibiting function as well as a drag reducing function.

The relationship of the drag reduction as a function of concentration would have been expected to have at least a minimum threshold to function, which would be above 100 ppm as the lower limit claimed. The relationship would be expected result in decreasing drag with increasing agent concentration to a maximum threshold. The claims merely require a reduction in drag and an effective amount to achieve said reduction. Since the reference adds the same agent at the upper end of applicants' concentration range, it is reasonable to conclude that said concentration is inherently an effective amount to reduce drag.

To the extent the 750 ppm does not include the amount of imidazoline base, a stoichiometric amount of imidazoline base (MW ~ 70) would result for a maleated fatty acid (MW ~ 400) in a concentration of less than 1000 ppm claimed ( $750 \text{ gm/kg} / 400 \text{ gm/mol MW Acid} \times 470 \text{ gm/mol Acid} + \text{Base} \sim 880 \text{ ppm}$ ).

Knox et al differs from the claims in the requirement that the addition be continuous.

Fischer et al discloses related acid anhydride esters as corrosion inhibitors for oil field down hole use. Fischer et al (column 8, lines 52-59; column 12, lines 7-12, 31-35, and 52-56) shows that the continuous addition of corrosion inhibitors in down hole

applications employing the Knox et al class of corrosion inhibitors is known in the corrosion inhibiting art to those having ordinary skill in the art.

These references are combinable since they teach maleanized fatty acids as corrosion inhibitors in oil field down hole applications. It would have been obvious to one of ordinary skill in the art at the time of applicants' invention to add the corrosion inhibitors taught in the Knox et al reference continuously to maintain the corrosion protection in the oil field application shown to be conventional for said utility in the Fischer et al reference.

#### ***Response to Arguments***

4. Applicant's arguments filed January 13, 2006 have been fully considered but they are not persuasive.
5. The anticipation rejection under 35 USC 102(f) has been withdrawn in light of applicants' remarks.
6. Applicants (page 13) assert the Knox et al reference teaches 750-6000 ppm of the corrosion inhibitor additives and the claims are now limited to 150-600 ppm. This has not been deemed persuasive since the claims employ open transitional language, i.e., comprising; the amounts are modified by about, the claims require a drag reducing effective amount, and said ranges have not been shown to be unobvious over the use of the same materials as corrosion inhibitors. The relationship of the drag reduction as a function of concentration would have been expected to have at least a minimum threshold to function, which would be above 100 ppm as the lower limit claimed. The relationship would be expected result in decreasing drag with increasing agent

concentration to a maximum threshold. The claims require continuous addition of drag reducing agent for the reduction in drag. Since the reference adds the same agent at the upper end of applicants' concentration range, it is reasonable to conclude that said concentration is inherently an effective amount to reduce drag. The claims do not exclude the further addition for the function of corrosion inhibition.

Furthermore, applicants' specification asserts (paragraph 22) typical use levels for drag reducing agents is 5 to 10 times higher than corrosion inhibitors and the ranges are merely exemplary. Applicants have not shown said range to be patentably distinct from the ranges disclosed in the references.

Fischer et al teaches it is conventional to add continuously further corrosion inhibitors and thus maintain a minimum threshold for the system. Since systems vary in both desired drag reduction and corrosion susceptibility and the corrosion inhibitors are used up in the system over time, the amount of additive would vary from system to system. It is within the level of one having ordinary skill in the art to determine the minimum effective amount of the additive for the corrosion inhibiting function for a particular system for the advantage of minimizing corrosion, associated corrosive scale and associated reduced flow from said corrosive scale.

### ***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel S. Metzmaier whose telephone number is (571) 272-1089. The examiner can normally be reached on 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy P. Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Daniel S. Metzmaier  
Primary Examiner  
Art Unit 1712

DSM